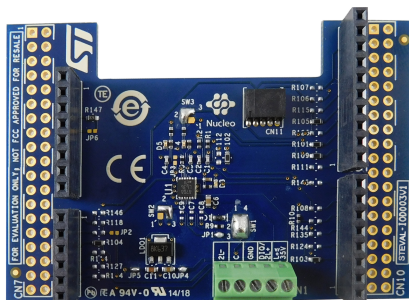


IO-Link (PHY) device evaluation board based on L6362A with Arduino connectors for STM32 Nucleo



Features

- **L6362A** IO-Link device transceiver main characteristics:
 - IO-Link PHY layer
 - Dedicated overload diagnostics pin
 - UART interface
 - Selectable 12 mA 3.3 V or 10 mA 5.0 V linear regulator
 - Overload and overheating protections with non-dissipative cut-off function
 - Full reverse polarity on IO-Link interface pins
 - EMC protections (as per IO-Link v1.1)
 - Surge protection (as per IEC 60947-5-2)
 - DFN-12L (3x3x0.9 mm) package
- 6.5 to 35 V operating voltage range
- On-board 100 mA 12 V linear regulator (**L78L**)
- LEDs for status and diagnostics
- Ground and V_{CC} wire break protections
- Compatible with STM32 Nucleo boards
- Equipped with Arduino UNO R3 connectors
- RoHS and China RoHS compliant

Description

The **STEVAL-IOD003V1** evaluation board is based on the **L6362A** IO-Link PHY device with full integrated EMC protection (according to IO-Link v1.1 specification) and surge protection (according to IEC 60947-5-2). It provides an affordable and easy-to-use solution for the development of IO-Link and SIO applications, letting you easily evaluate the communication features and robustness of the L6362A.

The on-board linear regulators (12 mA-3.3 V from L6362A and 100 mA-12 V from **L78L12ABUTR**) can be used to supply the microcontroller via the 24 V bus, instead of via USB.

When the L78L12ABUTR is enabled (default configuration), you can also perform evaluation of complete industrial sensor modules by connecting the STEVAL-IOD003V1 to a **NUCLEO-L073RZ** (or **NUCLEO-L053R8**) board and an **X-NUCLEO-IKS01A2** expansion board.

The STEVAL-IOD003V1 interfaces with the STM32 controller via UART and GPIO pins and is compatible with the Arduino UNO R3 (default configuration) and ST morpho (optional, not mounted) connectors.

Product summary	
IO-Link device evaluation board based on L6362A with Arduino connectors for STM32 Nucleo	STEVAL-IOD003V1
IO-Link communication transceiver device IC	L6362A
L6362A IO-Link communication transceiver device IC evaluation software based on STM32Cube	STSW-IOD003

1 STEVAL-IOD003V1 schematic diagrams

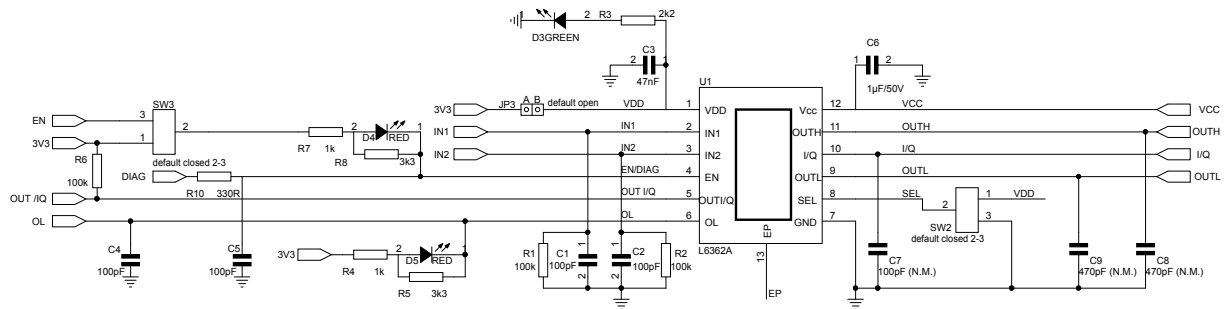
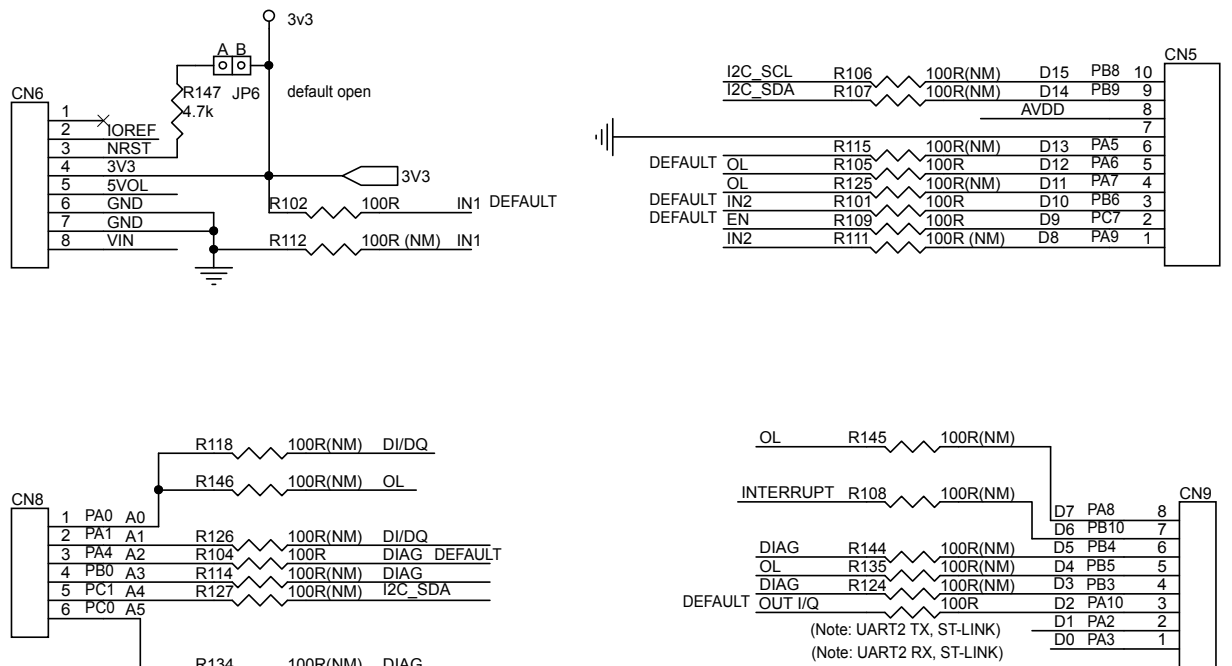
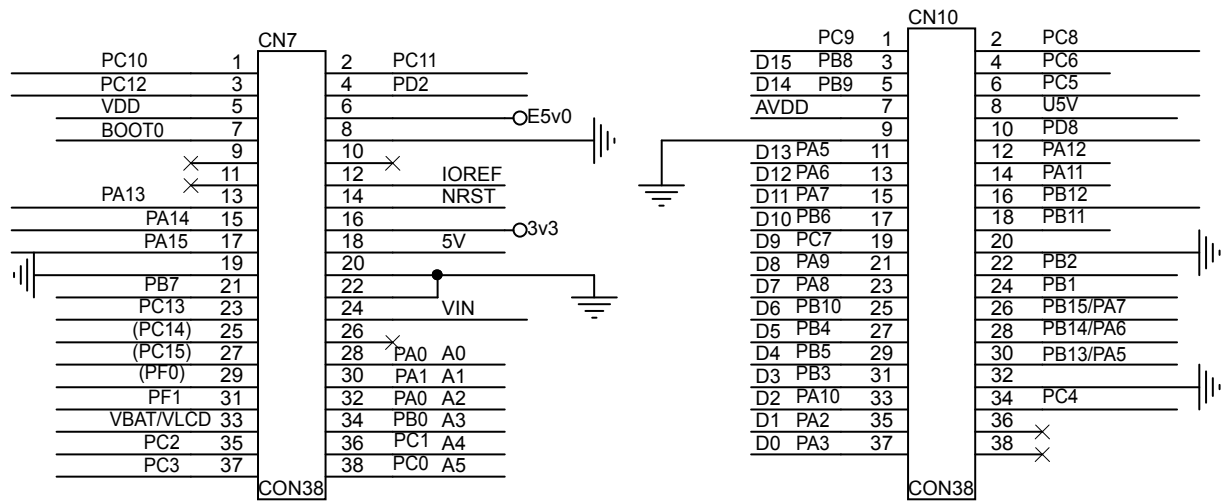
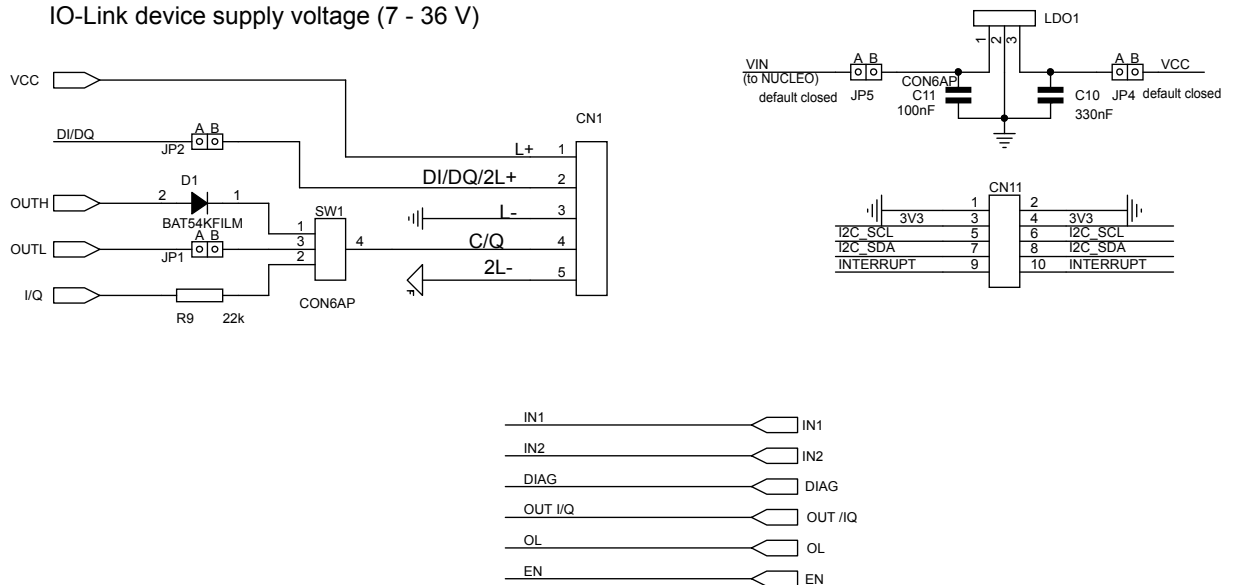
Figure 1. STEVAL-IOD003V1 circuit schematic (1 of 4)

Figure 2. STEVAL-IOD003V1 circuit schematic (2 of 4): Arduino connectors


Figure 3. STEVAL-IOD003V1 circuit schematic (3 of 4): ST morpho connectors

Figure 4. STEVAL-IOD003V1 circuit schematic (4 of 4): supply voltage

IO-Link device supply voltage (7 - 36 V)



Revision history

Table 1. Document revision history

Date	Version	Changes
04-Jun-2018	1	Initial release.

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